

FACT SHEET

PROPOSED NPDES PERMIT FOR

DISCHARGES FROM DRINKING WATER SYSTEMS

Overview of the Proposed Permit

Water districts or public/private water purveyors are responsible for developing water supplies and providing drinking water to their communities and customers in accordance with statutory requirements of the federal Safe Drinking Water Act and the California Health and Safety Code. Mandatory system-development and system-maintenance activities often result in surface water discharges, either via storm drain systems or directly to a creek, river or lake. Clean Water Act section 402 requires that a discharge of any pollutant, or combination of pollutants, to surface waters that are deemed waters of the United States, with certain exceptions, be regulated by a National Pollutant Discharge Elimination System (NPDES) permit. Some Regional Water Quality Control Boards (Regional Water Boards) regulate discharges of drinking water using region-wide general low threat NPDES permits that regulate a broad range of constituents, and not necessarily constituents of concern from these discharges.

Large and small municipalities have Municipal Separate Storm Sewer System (MS4) NPDES permits for discharge of storm water to waters of the United States. Some municipalities allow drinking water system discharges to enter their storm water system as authorized non-storm water discharges, typically through local agreements. Other MS4 permit holders do not allow such discharges to enter their storm water system unless that discharge is separately regulated by the Regional Water Board prior to entering the system. Additionally, there are discharges from drinking water systems that enter surface waters directly, not via a storm water conveyance system that are unregulated.

What is the threat that potable water and treated drinking water poses when discharged to surface water?

Discharges of potable water and treated drinking water have constituents of concern for surface water quality. Mandatory groundwater well development and maintenance activities require the flushing of sand and grit from the well screens prior to delivery of potable raw water. The constituents of concern from well development and maintenance activities are suspended solids and turbidity, either in the water pumped or from erosion or debris-flushing caused by the flow. Such discharges potentially cause exceedances of standards established by the Water Boards to protect beneficial uses of the receiving water.

Drinking water served to the public must comply with Title 22 of the California Safe Drinking Water Act. Water that complies with Title 22 is highly treated as it is coagulated, filtered and disinfected per Title 22 standards. The California Department of Public Health requires water that is treated for public distribution to have a chlorine residual, for prevention of re-growth of bacteria or algae while in the distribution piping system. Although chlorine at these levels is safe for humans to consume, it is extremely toxic to aquatic life; therefore discharges of treated drinking water have the potential to cause an exceedance of toxicity thresholds for protection of aquatic life.

Discharges from distribution piping systems (such as fire hydrant flushing or back flow preventers) flow across street surfaces into storm water catchment facilities, pushing debris and oils into the storm drain system. Additionally, unintentional and unplanned discharges from pipe breaks that flow into surface water may cause erosion within their flow path and push sediment into the receiving water.

How are discharges from drinking water systems currently regulated?

The nine Regional Water Boards regulate drinking water system discharges per their discretion. Most Regional Water Boards regulate these discharges with "low threat" type general orders that regulate a suite of different discharges deemed a low threat to surface water quality. Some Regional Water Boards indirectly regulate these discharges by allowing the MS4 permit holders to locally regulate discharges that enter their systems. Other Regional Water Boards do not regulate these discharges.

Why would a water district/purveyor want to have its own NPDES Permit?

We know that discharges from drinking water systems have a potential to cause an exceedance of water quality standards and may pose a threat to beneficial uses of surface water. Obtaining an NPDES permit assures water districts/purveyors that they will not be exposed to regulatory enforcement for discharging without a permit. (A Regional Water Board has the discretion to take enforcement for discharging without a permit.) Additionally, having a discharge that is regulated by, and complies with, a Water Board NPDES permit will protect the discharger from third party lawsuits aimed at violation of the Clean Water Act, section 402.

Discharges from drinking water systems, including discharges from water distribution systems and distribution system pipe breaks, are of a consistent nature throughout the state – water that is treated by a water treatment plant per Department of Public Health Title 22 standards and chlorinated to maintain a required minimum chlorine residual concentration. Having a common NPDES permit to specifically regulate these discharges proposes to provide a consistent permitting mechanism for protection of beneficial uses of surface water from these discharges.

Fundamentals of the Conceptual Permit:

The State Water Resources Control Board (State Water Board) has embarked on a unique effort to develop a drinking water discharge permit for Regional Water Boards to implement per their discretion. The San Francisco Bay and Los Angeles Regional Water Boards already working on the same or similar permits for drinking water system discharges are participating in the combined effort to investigate the feasibility of a multi-regional NPDES Permit for drinking water system discharges to surface waters. The intended purpose of the permit is to provide Regional Water Boards with a tool to regulate the subject discharges. The intended benefit of the proposed permit is to provide water districts/purveyors with increased regulatory certainty through a permit that implements effluent limits, best management practices and monitoring specific to their drinking water discharges.

The conceptual permit is proposed to be used by Regional Water Boards that choose to regulate discharges from drinking water systems with a discharge-specific NPDES permit. The rest of this document discusses the Water Boards' interest to focus on permitting elements that will lead to a better method of regulating discharges from drinking water systems. The conceptual permit, proposed to be adopted by the State Water Resources Control Board, is anticipated to regulate the following discharges to surface water, either directly or indirectly through a storm water conveyance system:

1. Treated Drinking Water from:
    - Storage Tanks and Reservoir Dewatering
    - Distribution System Tank Dewatering
    - Distribution System Flushing
    - Distribution System Pipeline Dewatering, Disinfection, and Pressure Testing
    - Fire Flow Testing
    - Meter Testing
    - Automated Water Quality Analyzers
2. Raw Potable Water from:
    - Groundwater Well Flushing
    - Groundwater Well Rehabilitation
    - Groundwater Well Development and Testing
3. Unplanned Discharges (Raw Potable and Treated Drinking Water):
    - Emergency System Repairs
    - Catastrophic Events

Additionally, the permit may propose, per Section 5.3 of the State Water Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, to provide a categorical exception[1] to water districts/purveyors from complying with California Toxic Rule[2] priority pollutant criteria/objectives, as determined to be necessary to implement control measures for drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Such an exception will allow water districts/purveyors to go forward with their mandatory responsibilities to protect public health without the restrictions or concern of violation of the California Toxic Rule.

Current Stakeholder Involvement:

Water districts and water purveyors in the Sacramento metropolitan area and in the San Francisco bay area have requested that their corresponding regional water quality control board develop an NPDES permit specifically for discharges of drinking water from their systems. The basis of the request is to have a permit that is specific to the nature and degree of threat to water quality from discharge of either potable raw water or treated chlorinated drinking water.

Proposed Permitting Options for Stakeholder Consideration:

- Develop a discharge-specific NPDES permit requiring water districts/purveyors to:
    - Implement best management practices that minimize erosion and debris into surface waters
    - De-chlorinate planned and intentional discharges to lower chlorine concentrations to reporting levels of hand-held monitoring equipment, and/or showing a presence of a de-chlorination agent, and
    - Implement immediate response activities that reflect due diligence when becoming aware of an unplanned and unintentional discharge due to pipe breaks and/or catastrophic events.

[1] The Water Board must comply with the California Environmental Quality Act (CEQA) prior to allowing a categorical exception from meeting priority pollutant criteria/objectives.

[2] On May 18, 2000, the EPA promulgated the California Toxic Rule containing numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to waters in the state of California.

Questions for Stakeholder Consideration:

1. What are your concerns regarding the development of an NPDES permit to specifically regulate discharges from drinking water systems?

2. What level of prescriptiveness regarding implementation of best management practices do you believe is appropriate for an NPDES permit?

3. What type of monitoring and reporting approach will allow Water Districts to dedicate necessary resources to protecting public health while concurrently providing data and information to demonstrate that beneficial uses in surface water are protected from these discharges?

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